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## Lesson 23 Morphological Spelling

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### Outcomes

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- Understand that the difference between word and phrase rules shows the best ways to write spelling rules
- Skill of recognizing word and phrase rules, applying them to spelling.

### Word and Phrase Rule Review

What if we find no word rule indicators and no phrase rule indicators for a certain process? Which kind of rule is it, a word rule or a phrase rule?

If no indicators are found, it is a phrase rule.

### Content

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In the past lesson, we learned about word rules and phrase rules. We applied these to two language situations with a language process to decide how to spell the words. Word rules only occur in words, whereas phrase rules can occur across word boundaries, or in phrases, so are called phrase rules. Word rules are processes that produce sounds speakers are aware of, whereas phrase rules are processes that produce sounds speakers are not aware of.

There are other indicators of both word rules and phrase rules. We'll review these today. Then we'll practice them on five more language situations with a process. We'll see which indicators are true of the process. Based on the indicators, we'll decide if each process is a word rule or phrase rule. Then, we'll decide how to spelling the words. Let's first review the indicators.

**Word Rules (Lexical processes) produce sounds speakers are aware of; the sound differences (changes produced by the rule) should be written**

- a) If there are genuine exceptions to a process, it must be a word rule.
- b) If a process does not have a phonetic reason (if the sound changes are not easier for the mouth to pronounce), it must be a word rule.
- c) If the process is not found in roots but only across morpheme boundaries, it must be a word rule.
- d) If speakers are aware of the sounds produced by a process, the process must be a word rule.

**Phrase Rules (Postlexical processes) produce sounds speakers are not aware of; the sound differences (changes produced by the rule) should not be written.**

- a) If a sound produced by a process is an allophone, the process must be a phrase rule.
- b) If a process occurs across a word boundary, it must be a phrase rule.
- c) If a sound produced by a process is gradient (partially voiced, partially aspirated, etc.), the process must be a phrase rule.
- d) If speakers are not aware of the sounds produced by a process, the process must be a word rule.

Now, let's do an exercise to practices using these indicators. In Lumun, the weakening and voicing process causes the phoneme /c/ to become the allophone [j] inbetween vowels. It doesn't matter if the /c/ is in-between vowels in a root, across morpheme boundaries or across word boundaries. It is weakened and voiced in each of the environments by the same process. Take 5 mintues to think about which indicators are true for this process, decide if it is a word rule or phrase rule, and then how to write the words.

**Exercise 1:** Find indicators that the following process is a word rule or phrase rule. Then chose how to write the example words.

Weakening & Voicing (LUMUN Sudan)

/c/ → [j] after ɪ +

/carak/	→	[carak]	'stomach'
/ɪ-carak/	→	[ɪjarak]	'in-stomach'
/picək/	→	[pijək]	'tree type'
/ana caɾɪ cən/	→	[anajarɪjən]	'and that day'

There are no word rule indicators

a) *If there are genuine exceptions to a process, it must be a word rule.*

We don't know about any exceptions. (Not an indicator)

b) *If a process does not have a phonetic reason, it must be a word rule.*

The rule does not lack a phonetic reason; it is easier for the mouth to pronounce /c/ as [j] between vowels; this is a phonetic reason. (Not an indicator).

c) *If the process is not found in roots but only across morpheme boundaries, it must be a word rule.* The word [picək] 'tree type' is a root with the same process. The process also occurs in roots and not just at morpheme boundaries. (Not an indicator).

There are two phrase rule indicators

a) *If a sound produced by a process is an allophone, the process must be a phrase rule. The sounds [j] is an allophone.* So, the process must be a phrase rule. (Indicator)

b) *If a process occurs across a word boundary, it must be a phrase rule.*

The process occurs across a word boundary in /ana caɾɪ cən/. So, the process must be phrase rule. (Indicator)

c) *If a sound produced by a process is gradient (partially voiced, partially aspirated, etc.), the process must be a phrase rule.*

We don't know about any gradient sounds in the data. (Not an indicator)

Since the process is a phrase rule, we don't write the sounds differently. We write them as the original phoneme.

<u>Original</u>		<u>Sound</u>	<u>Written</u>	
/caɾak/	→	[caɾak]	caɾak	'stomach'
/ɪ-caɾak/	→	[ɪjaɾak]	icaɾak	'in-stomach'
/picək/	→	[pɪjək]	picək	'tree type'
/ana caɾɪ cən/	→	[anaɟaɾɪjən]	ana ca'ri cən	'and that day'

5 minutes for the following exercise.

**Exercise 2:** Find indicators that the following process is a word rule or phrase rule. Then chose how to write the example words.

Vowel Insertion (Epenthesis) (LARU Sudan)

The vowel /ɪ/ is inserted when consonants are joined together through morphology.

/d-lukuru/	→	/dɪlukuru/	'CM-dove'
/g-rɪnà/	→	/gɪrɪnà/	'CM-rope'
/g-a.dɪ/	→	/gadɪ/	'CM-nose'
/g-ə.tɪ/	→	/gɪə.tɪ/	'CM-gourd'

There is one word rule indicator

a) *If there are genuine exceptions to a process, it must be a word rule.*

We don't know about any exceptions. (Not an indicator)

b) *If a process does not have a phonetic reason, it must be a word rule.*

The rule does not lack a phonetic reason; two consonants are easier to pronounce with a vowel between them. (Not an indicator).

c) *If the process is not found in roots but only across morpheme boundaries, it must be a word rule.* The words /ga.dɪ/ 'nose', /gə.tɪ/ 'gourd' have two consonants together in the roots without a vowel between them. The second consonant becomes syllabic. Since the insertion process does not occur in roots, but only across morpheme boundaries, it must be a word rule. (Indicator)

There are no phrase rule indicators

a) *If a sound produced by a process is an allophone, the process must be a phrase rule.* The sound [ɪ] is a phoneme as seen in /g-rɪnà/ 'rope'. (Not an indicator)

b) *If a process occurs across a word boundary, it must be a phrase rule.*

We don't find the process across word boundaries in the data (Not an indicator)

c) *If a sound produced by a process is gradient, the process must be a phrase rule.*

We don't know about any gradient sounds in the data. (Not an indicator)

Since the process is a word rule, we write the sounds produced by the rule. We write the inserted vowel.

<u>Original</u>		<u>Sound</u>	<u>Written</u>	
/d̥-lukuru/	→	/d̥'lukuru/	d̥lukuru	'CM-dove'
/g-rínà/	→	/g'rínà/	g̥rina	'CM-rope'
/g-a.d̥/	→	/gad̥/	gad̥	'CM-nose'
/g-à.t̥f̥/	→	/g̥à.t̥f̥/	g̥àtr	'CM-gourd'

**Exercise 3:** Find indicators that the following process is a word rule or phrase rule. Then chose how to write the example words.

Vowel Deletion (Elision) (LAARIM Sudan)

When two vowels are joined together at morpheme breaks, the first is deleted.

/d̥oɔl̥-eeɔ/	→	/d̥ooleec/	'child-SG'
/ɲum̥ɲumu-eeta/	→	/ɲum̥ɲumeeta/	'owl-PL'
/kali-eeɲ/	→	/kaliieɲ/	'whip-PL'
/ketelu-oc/	→	/keteluoc/	'bedbugs-SG'

There are no unambiguous vowel sequences in roots.

There is one word rule indicator

a) *If there are genuine exceptions to a process, it must be a word rule.*

/kaliieɲ/ 'whip-PL' and /keteluoc/ 'bedbugs-SG' are exceptions. (Indicator)

b) *If a process does not have a phonetic reason, it must be a word rule.* The rule does not lack a phonetic reason; vowel sequences are not allowed in roots. (Not an indicator).

c) *If the process is not found in roots but only across morpheme boundaries, it must be a word rule.* Vowel sequences do not occur in roots or at morpheme boundaries. So, the process is found in roots. (Not an indicator).

There are no phrase rule indicators

a) *If a sound produced by a process is an allophone, the process must be a phrase rule.* No sounds produced by the process are allophones. (Not an indicator)

b) *If a process occurs across a word boundary, it must be a phrase rule.*

We don't find the process across word boundaries in the data (Not an indicator)

c) *If a sound produced by a process is gradient, the process must be a phrase rule.*

We don't know about any gradient sounds in the data. (Not an indicator)

Since the process is a word rule, we write the sounds produced by the rule. When vowels are deleted, we do not write them. When vowels remain, we write them.

<u>Original</u>		<u>Sound</u>	<u>Written</u>
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/ḍḍḍḍ-eeɕ/	→	/ḍḍḍeeɕ/	ḍḍḍeeɕ	‘child-SG’
/ŋumŋumu-eeta/	→	/ŋumŋumeeta/	ŋumŋumeeta	‘owl-PL’
/kalli-εɛn/	→	/kalliεɛn/	kalliĩɛ̃n	‘whip-PL’
/ketelu-oc/	→	/keteluoɕ/	keteluoɕ	‘bedbugs-SG’

**Exercise 4:** Find indicators that the following changes is a word rule or phrase rule. Then chose how to write the example words.

(LARU Sudan) (CM = noun class concord marker)

/ḍ-ama/	→	/ḍama/	‘CM1-animal food’
/ḍ-aba/	→	/laba/	‘CM2-iron’
/ḍ-aɲa/	→	/gɲa/	‘CM3-grass’

There are two word rule indicators

a) *If there are genuine exceptions to a process, it must be a word rule.*

We don’t know about any exceptions. (Not an indicator)

b) *If a process does not have a phonetic reason, it must be a word rule.*

There is no phonetic reason for the change. So, it must be a word rule. (Indicator).

c) *If the process is not found in roots but only across morpheme boundaries, it must be a word rule.* The noun class concord marker only attaches to the beginnings of noun roots across the morpheme boundary. Since the markers do not attach in roots, but only across morpheme boundaries, it must be a word rule. (Indicator)

There are no phrase rule indicators

a) *If a sound produced by a process is an allophone, the process must be a phrase rule.* No sounds produced by the process are allophones. (Not an indicator)

b) *If a process occurs across a word boundary, it must be a phrase rule.*

We don’t find the process across word boundaries in the data (Not an indicator)

c) *If a sound produced by a process is gradient, the process must be a phrase rule.*

We don’t know about any gradient sounds in the data. (Not an indicator)

Since the process is a word rule, we write the sound differences produced by the rule. We write each of the concord markers differently.

<u>Original</u>		<u>Sound</u>		<u>Written</u>	
/ḍ-ama/	→	/ḍama/		<b>ḍama</b>	‘CM1-animal food’
/ḍ-aba/	→	/laba/		<b>laba</b>	‘CM2-iron’
/ḍ-aɲa/	→	/gɲa/		<b>ganya</b>	‘CM3-grass’

**Exercise 5:** Find indicators that the following changes is a word rule or phrase rule. Then chose how to write the example words.

[+ATR] leftward spreading (‘BELI Sudan)

V → [+ATR] before + V[+ATR]

/mɔ-lə/	→	/molə/	‘VN-crawl’
/mɔ-ḍo/	→	/moḍo/	‘VN-kill’
/mɔ-fa/	→	/mɔfa/	‘VN-run’
/mɔ-cɔ/	→	/mɔcɔ/	‘VN-fall’

[-ATR] /ɪ/,/ʊ/,/ɛ/,/ɔ/,/a/ and [+ATR] /i/,/u/,/e/,/o/,/ə/ vowels are not mixed in roots.

Speakers are aware of the difference between [mo-] in /molə/ and [mɔ-] in /mɔfa/.

There is one word rule indicator

a) *If there are genuine exceptions to a process, it must be a word rule.*

We don’t know about any exceptions. (Not an indicator)

b) *If a process does not have a phonetic reason, it must be a word rule.* Does not lack a phonetic

reason; vowels are easier to pronounce with same quality in words. (Not an indicator).

c) *If the process is not found in roots but only across morpheme boundaries, it must be a word rule.* [-ATR] and [+ATR] vowels are not mixed in roots. The process also occurs in roots, and not just at morpheme boundaries. (Not an indicator).

d) *If speakers are aware of the sounds produced by a process, the process must be a word rule.* Speakers are aware of the sounds [mo-] in /molə/ and [mɔ-] in /mɔfa/ produced by the process, so the process must be a word rule. (Indicator)

There are no phrase rule indicators

a) *If a sound produced by a process is an allophone, the process must be a phrase rule.* No sounds produced by the process are allophones. (Not an indicator)

b) *If a process occurs across a word boundary, it must be a phrase rule.*

We don’t find the process across word boundaries in the data (Not an indicator)

c) *If a sound produced by a process is gradient, the process must be a phrase rule.*

We don’t know about any gradient sounds in the data. (Not an indicator)

Since the process is a word rule, we write the sound differences produced by the rule. We write [+ATR] vowels differently than [-ATR] vowels.

<u>Original</u>		<u>Sound</u>	<u>Written</u>
/mɔ-lə/	→	/molə/	mölä ‘VN-crawl’
/mɔ-ḍo/	→	/moḍo/	mödö ‘VN-kill’
/mɔ-fa/	→	/mɔfa/	mɔ’ja ‘VN-run’
/mɔ-cɔ/	→	/mɔcɔ/	moco ‘VN-fall’

**Class Assignment:**

1. Think about the Yoruba assimilation rule for the continuous aspect morpheme. Which indicators show that it is word rule or phrase rule? Based on the indicators, make a claim for it to be a word rule or phrase rule. Based on your choice, should the sound differences produced by the rule be written or not? Give your

recommendation of how to orthographically write the following Yoruba verbs with this morpheme: 101, 68, 73, 124, 66.

**Reading Assignment**

*A Guide to Phonological Analysis pg 71-76; 138-140*